

Electrotherapy, ultrasound therapy and combined therapy

Etius U

Etius U – it is a modern and ergonomic unit intended to use in electrotherapy, ultrasound therapy, combined therapy and electrophonophoresis. Also the unit may be applied in electrodiagnostics of nervous-muscle system.

The unit is distinguished by the fact that has got two completely independent treatment channels. Thanks to this solution it is possible to perform simultaneous treatments with different parameters on one or two patients.

Basic area of its functionality is electrotherapy, in which the unit provides the availability of all typical and commonly used currents. Additionally, the Etius U offers completely new possibilities: application of microcurrents, unipolar sine surge and specially designed TENS currents used in spastic paralysis therapy.

Thanks to the application of modern technical solutions, the Etius U unit enables performing of combined therapy treatments without the necessity of connecting an external electrostimulator or the ultrasound therapy unit.

SPECIFICATION

ELECTROTHERAPY – CURRENTS

- interferential (isoplanar, dynamic, static, one-channel AMF)
- TENS (symmetric, asymmetric, alternating, Burst)
- TENS to spastic paralysis therapy
- Kotz'/Russian stimulation
- tonolysis
- diadynamic (MF,DF,CP,CP-ISO, LP)
- Trabert pulse, Leduc, faradic
- pulse – rectangular, triangular
- unipolar sine surge
- galvanic
- microcurrents

ELECTRODIAGNOSTICS

- electrodiagnostics with graphic presentation of I/t curve
- automatic calculation of rheobase, chronaxie as well as threshold, coefficient and quotient of accommodation

ULTRASOUND THERAPY (optional)

- 1 MHz, 1 cm² ultrasound head
- 1 MHz, 4 cm² ultrasound head
- continuous emission – thermal effect
- pulse emission – micro-massage
- ultrasound heads provided with contact control connected to treatment timer
- stabilization of output power



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ELECTROPHONOPHORESIS (optional)

- 1 MHz, 4 cm² electrophonophoresis head
- available currents: unipolar sine surge, pulse, diadynamic, galvanic
- electrophonophoresis head provided with contact control connected to treatment timer
- current flow monitoring
- focus of the influence of electric field and ultrasound wave in the area of medicine absorption
- deep penetration – up to 10 cm under the skin
- high concentration of medicine in treated area
- acceleration of the medicine's effect influenced by ultrasound wave

MANUAL MODE

complete control over parameters for advanced users

TREATMENT PROGRAMS

- simplification of the unit operation
- treatment programs chosen by name
- 237 preset treatment procedures
- 110 user-defined programs
- 80 favourite programs
- naming individual user programs



Technical specification

ERGONOMICS

- two independent treatment channels
- operation mode: program/manual
- easy-to-read display
- operation in graphic mode
- preset treatment program base
- treatment programs chosen by name
- treatment timer
- electrodes test
- statistics – the number of performed treatments
- buzzer volume setting
- precise control over the ultrasound wave emission during performed treatment
- head sensitivity calibration
- temporal loss of contact does not interrupt treatment procedure e.g. bone area

STRUCTURE

- graphic LCD display
- heavy-duty and reliable keyboard
- modern design
- operation in CC (stabilized output current) and CV (stabilized output voltage) modes
- complete galvanic isolation between channels in each mode
- generation of unidirectional (unipolar) currents in interrupted mode
- self-test – systematic control of the unit

TECHNICAL SPECIFICATIONS

controller – maximum constant current in patient's circuit (CC mode)

galvanic	40 mA
diadynamic, pulse	60 mA
interferencial, Kotz', unipolar sine surge	100 mA
TENS	140 mA
tonolysis	100 mA
microcurrents	1 000 µA

maximum voltage in patient's circuit (CV mode)	140 V
max. ultrasound wave intensity	3 W/cm ²
pulse frequency	16 Hz, 48 Hz, 100 Hz
duty cycle for pulse mode	10 %, 25 %, 50 %, 75 %
mains supply	230 V, 50 Hz, 70 W, 100 VA
weight	max. 6 kg

WARRANTY

Etius U	2 years
ultrasound head	2 years
electrophonophoresis head	2 years



Main menu – channel 1



Main menu – channel 2



Currents



Program mode menu

Etius U

Technical specification

STANDARD ACCESSORIES

- mains cable
- patient lead (2 pcs.)
- electrotherapy electrode 6x6 cm (4 pcs.); 7,5x9 cm (2 pcs.)
- viscose electrode cover 6x6 cm (8 pcs.); 7,5x9 cm (4 pcs.)
- velcro fixing belt 40x10 cm (2 pcs.); 100x10 cm (2 pcs.)
- 1 MHz, 4 cm² ultrasound head with holder
- gel 0,5 l (1 pc.)
- spare fuse T1 AL250 V (2 pcs.)
- user guide

OPTIONAL ACCESSORIES

- disposable self-adhesive electrodes 3x4 cm; 5,5x5,5 cm; 5,5x12,5 cm
- point electrodes 5 mm, 10 mm, 15 mm, 20 mm
- crocodile clip
- sand-filled bag 21x14 cm, 21x28 cm
- bag for the unit and accessories
- Elf, Elf X trolleys
- 1 MHz, 1 cm² ultrasound head with holder
- 1 MHz, 4 cm² electrophonophoresis head with holder
- patient's switch

